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Zynga Inc.

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO**

ZYNGA INC.,

Plaintiff,

v.

SCOPELY, INC., a Delaware
Corporation, MASSIMO MAIETTI, an
individual, EHUD BARLACH, an
individual, and DOES 1 through 50,
inclusive,

Defendants.

Case No.

**DECLARATION OF MELANIE
MAUGERI IN SUPPORT OF
PLAINTIFF'S APPLICATION
FOR TEMPORARY
RESTRAINING ORDER AND
PRELIMINARY INJUNCTION**

DECLARATION OF MELANIE MAUGERI

I, Melanie Maugeri, declare and state as follows:

1. If called upon to testify in this matter, I could and would testify competently to the following facts that are within my personal knowledge.

2. I am a Manager in the Digital Forensic department at Stroz Friedberg, LLC, and I provide this declaration in support of Zynga Inc.'s ("Zynga") Ex Parte Application for Temporary Restraining Order, Evidence Preservation Order, Order for Expedited Discovery, and Order to Show Cause Re Issuance of Preliminary Injunction.

3. Stroz Friedberg, an Aon company, is a specialized risk management firm built to help clients solve the complex challenges prevalent in today's digital, connected, and regulated business world. A global leader in the field of cybersecurity, with leading experts in digital forensics, incident response, security science, investigation, eDiscovery, and due diligence, Stroz Friedberg works to maximize the health of an organization, ensuring its longevity, protection, and resilience. Founded in 2000 and acquired by Aon in 2016, Stroz Friedberg has 13 offices across nine U.S. cities, London, Zurich, Dubai, and Hong Kong, and serves Fortune 100 companies, 80% of the AmLaw 100, and the Top 20 UK law firms.

I. QUALIFICATIONS AND BACKGROUND

4. My responsibilities at Stroz Friedberg include conducting data acquisitions and digital forensic analysis of personal computers, servers, and mobile devices. My responsibilities also include collection and analysis of internet-based evidence and systems, including website preservation. Through my education, training, and experience, I have been involved in a number of data exfiltration and Intellectual Property theft investigations.

5. Attached as Exhibit A to this declaration is a copy of my Curriculum Vitae, which sets forth in detail additional aspects of my qualifications and background.

II. EVIDENCE CONSIDERED

6. On or about October 26, 2016, O'Melveny & Myers LLP ("O'Melveny") retained Stroz Friedberg on behalf of Zynga to analyze a MacBook Air laptop used by former Zynga employee, Massimo Maietti ("Maietti"), the Lenovo Thinkpad T440 used by former Zynga employee Ehud Barlach ("Barlach"), the MacBook Air laptop used by former Zynga employee Derek Heck ("Heck"), and the MacBook Air laptop used by former Zynga employee Evan Hou ("Hou").

7. A "forensic image," or bit-stream copy, of the entire contents of the hard drive includes all data on the drive, not just the user-created files. The original media is write-protected during the imaging process to ensure no alterations are made to the original media. The forensic image is verified to be an exact bit-for-bit duplicate of the original hard drive using cryptographic MD5 hash algorithm.¹ The benefits of making such an image include the preservation of all data including deleted data, computer system and usage information, and user-created and system-created files. This in turn allows a more thorough analysis of the device than could be performed with only copies of user-created files. Also, working from a forensic image of the media, as opposed to the original media, allows the original media to be preserved in a pristine state.

8. The preliminary forensic analysis and examination undertaken at the request of O'Melveny included the examination of the forensic image outlined in paragraph seven for evidence of data exfiltration and other recent computer user behavior. Stroz Friedberg's analysis remains ongoing, and as such this declaration is not intended to set forth each and every finding from our forensic examination of the Maietti Computer, the Barlach Computer, the Heck Computer, and the Hou Computer, nor is it intended to set forth each and every aspect of Stroz Friedberg's work in this engagement.

¹ An MD5 hash value is a 32-digit value calculated by a Message-Digest Algorithm and is used throughout the digital forensics industry to check file integrity.

III. PRELIMINARY FORENSIC ANALYSIS AND FINDINGS ON MAIETTI COMPUTER

9. I was informed that Maietti separated from his employment with Zynga on or about July 7, 2016, and I was requested to analyze Maietti's computer usage leading up to that date. Specifically, I was requested to analyze folders that Maietti downloaded from Zynga's Google account to determine if the files had been copied or transferred out of the custody and control of Zynga. On or about October 28, 2016, we created a forensic image of a MacBook Air laptop bearing serial number C02NN7N6G5RP, which was used by Maietti (the "Maietti Computer").

10. As detailed below, preliminary analysis of the Maietti Computer revealed forensic findings consistent with the transfer of files from the Maietti Computer to a Toshiba external storage device. In addition, analysis of the Maietti Computer also revealed forensic findings consistent with the transfer of files from the Maietti Computer to a cloud-based storage repository known as Box.² Additional evidence suggests that a Dropbox folder once existed on this computer and was deleted on July 7, 2016.

11. Based on an examination of internet download artifacts, using a Google Chrome browser, ten folders were downloaded from Google Drive on July 4, 2016. The Google Chrome browser "zipped" those ten folders and downloaded them into the Downloads folder. On June 24 and 28, 2016, the file "mars_osx.zip" was downloaded through a similar process. Figure 1 below depicts the browser used, date and time the download started, and the file name.

² Box, <https://www.box.com>, is a cloud computing business that allows users to automatically sync files and folders between their Box account and their computers. This synchronization allows users to securely access and share files from any device and can be accessed online from any computer or device with an internet connection.

Browser	Date\Time	Name
Chrome	2016-07-04 16:14:21	Project_Mars-2016-07-04.zip
Chrome	2016-07-04 16:12:30	CastleVille_Documentation-2016-07-04.zip
Chrome	2016-07-04 16:12:29	Farm_2_-_LE_and_Feature_Content-2016-07-04.zip
Chrome	2016-07-04 16:12:28	4X-2016-07-04.zip
Chrome	2016-07-04 16:12:28	SDP's-2016-07-04.zip
Chrome	2016-07-04 16:12:28	FV2-2016-07-04.zip
Chrome	2016-07-04 16:08:42	FtV2-2016-07-04.zip
Chrome	2016-07-04 16:07:06	ArcadeVille-2016-07-04.zip
Chrome	2016-07-04 16:07:01	CastleVille-2016-07-04.zip
Chrome	2016-07-04 16:06:37	Z-Platform-2016-07-04.zip
Chrome	2016-06-28 20:23:27	mars_osx (2).zip
Chrome	2016-06-24 19:25:47	mars_osx (1).zip

Figure 1. File downloads from Google Drive

12. The ten zip files Maietti downloaded on July 4, 2016 have identical names to folders located within Zynga's Google Drive account, except that the date on which the files were downloaded was appended to the name of each folder and spaces in the folder name were replaced with an underscore. Accordingly, it is my understanding that each zip file likely contains the contents of the corresponding Google Drive folder as of July 4, 2016.

13. Maietti downloaded and copied nine of the ten zipped folders on July 4, 2016. On or about November 8, 2016, I worked with Zynga's IT staff to download the content of Zynga's corporate Google Drive used by Maietti. Based on my review of Zynga's Google Drive account for Maietti as of November 8, 2016, those files and folders are as follows:

- a. "Project_Mars-2016-07-04.zip" matches a folder named "Project Mars" on Zynga's Google Drive account. That folder contains approximately 12,200 files.

- b. “FV2-2016-07-04.zip” matches a folder named “FV2” on Zynga’s Google Drive account. That folder contains approximately 480 files.
- c. “Farm_2_-_LE_and_Feature_Content-2016-07-04.zip” matches a folder named “Farm 2 - LE and Feature Content” on Zynga’s Google Drive account. That folder contains approximately 800 files.
- d. “FtV2-2016-07-04.zip” matches a folder named “FtV2” on Zynga’s Google Drive account. That folder contains approximately 55 files.
- e. “CastleVille_Documentation-2016-07-04.zip” matches a folder named “CastleVille Documentation” on Zynga’s Google Drive account. That folder contains approximately 750 files.
- f. “CastleVille-2016-07-04.zip” matches a folder named “CastleVille” on Zynga’s Google Drive account. That folder contains approximately four files.
- g. “ArcadeVille-2016-07-04.zip” matches a folder named “ArcadeVille” on Zynga’s Google Drive account. That folder contains one file.
- h. “Z-Platform-2016-07-04.zip” matches a folder named “Z-Platform” on Zynga’s Google Drive account. That folder contains approximately seven files.
- i. “SDP’s-2016-07-04.zip” matches a folder named “SDP’s” on Zynga’s Google Drive account. That folder contains approximately 100 files.

14. The tenth folder, “4X-2016-07-04.zip,” which Maietti downloaded, matches a folder named “4X” on Zynga’s Google Drive account. That folder contains one zip file comprised of approximately 75 files.

1 15. On July 4, 2016, at 9:01 a.m., a Toshiba external storage device (Serial
2 Number 20121214008552F) was connected to the Maietti Computer. Evidence
3 indicates the device contains two volumes, “TIME MACHINE MM” and “DATA
4 MM.” When external media is attached to a computer system, it provides an
5 avenue for data exfiltration. Within the Mac OS X operating system, attached
6 media can be shown within various system artifacts including the system.log. As of
7 July 4, 2016, evidence found within system artifacts suggests the following nine zip
8 files existed on the Toshiba external storage device, specifically within the volume
9 “DATA MM.”

- 10 a. /Zynga Mac/Game Data/Project_mars-2016-07-04.zip
- 11 b. /Zynga Mac/Game Data/FV2-2016-07-04.zip
- 12 c. /Zynga Mac/Game Data/FtV2-2016-07-04.zip
- 13 d. /Zynga Mac/Game Data/Farm_2_-_LE_and_Feature_Content-
14 2016-07-04.zip
- 15 e. /Zynga Mac/Game Data/CastleVille-2016-07-04.zip
- 16 f. /Zynga Mac/Game Data/CasteVille_Documentation-2016-07-
17 04.zip
- 18 g. /Zynga Mac/Game Data/ArcadeVille-2016-07-04.zip
- 19 h. /Zynga Mac/Game Data/Z-Platform-2016-07-04.zip
- 20 i. Zynga Mac/Game Data/SDP's-2016-07-04.zip

21 16. Considering the following timeline, I believe that it is highly likely
22 that these zip files were copied to the external drive on July 4, 2016 at 9:20 a.m.
23 The timeline is as follows:

- 24 a. 9:01 a.m. - Toshiba external device is connected
- 25 b. 9:04 a.m. - Google search for “download a google drive folder”
- 26 c. 9:06 a.m. - Download of zip files to the Maietti Computer
- 27 d. 9:20 a.m. - First evidence of zip files on the Toshiba external
28 device

e. 10:18 a.m. - zip files on the Maietti Computer placed in Trash

17. Approximately 13,000 files and folders located within the Users/mmaietti/Zynga/Mafia Wars folder were accessed on July 7, 2016, between 4:36 p.m. and 4:59 p.m. This activity is likely indicative of files being copied to the Box Sync folder, as evidence suggests that the Users/mmaietti/Box Sync/Zynga/Mafia Wars folder existed on July 7, 2016, between 4:36 p.m. and 4:40 p.m. Evidence suggests that the Box Sync folder was placed in the Trash on July 7, 2016, around 6:27 p.m. and is no longer recoverable. Over 13,000 files once existed within the Box Sync folder on or around July 7, 2016, and seven files once existed in the Dropbox folder on July 7, 2016. Neither the Box Sync nor Dropbox folders currently exist on the Maietti Computer.

18. Over 20,000 files and folders were located within the Trash on July 7, 2016. These items, including application and some user data, have since been deleted and are not recoverable.

19. Examination of iMessage messages stored on the Maietti Computer indicate 11 messages from or to Maietti regarding Scopely. Figure 2 below depicts information regarding the sender, recipient, message sent date and time, and the message contents for three of those messages.

Sender	Recipient	Date (UTC)	Message
19176890163	"Me"	3/21/2016 12:10	Hey Massimo - did you ever speak with Scopely?
"Me"	19176890163	4/14/2016 3:56	Everything fairly ok yes. Let me know how the conversation with Scopely goes
"Me"	19176890163	5/17/2016 20:24	I'm going to interview at Scopely next Friday, the 27 th ...

Figure 2. iMessages recovered from the Maietti Computer

1 **IV. PRELIMINARY FORENSIC ANALYSIS AND FINDINGS ON**
2 **BARLACH COMPUTER**

3 20. I was informed that Barlach separated from his employment with
4 Zynga on or about September 2, 2016, and I was requested to analyze Barlach's
5 computer usage leading up to that date.

6 21. On or about October 28, 2016, we created a forensic image of a
7 Lenovo Thinkpad T440 bearing serial number PB039YZN, which was used by
8 Barlach (the "Barlach Computer").

9 22. As detailed below, preliminary analysis of the Barlach Computer
10 revealed forensic findings that a removable storage device was recently connected
11 to this computer. In addition, analysis of the Barlach Computer revealed forensic
12 findings indicating the use of Dropbox and Google Drive.

13 23. Preliminary analysis identified an external USB device, a Western
14 Digital My Passport drive, was most recently connected on August 22, 2016. The
15 device connection aligns with access to the folder path E:\My Pictures. My
16 analysis also identified a folder named, "*Hit It Rich!*", once existed on a device
17 assigned drive letter E:. It has not been confirmed, however, that this reference to
18 drive letter E: involves the Western Digital My Passport Drive or whether the "*Hit*
19 *It Rich!*" folder was active on the drive on September 2, 2016. Analysis of the
20 Western Digital My Passport Drive could lead to confirmation on these points.

21 24. Preliminary analysis identified access to Dropbox on the Barlach
22 Computer as recently as September 1, 2016. On August 8, 2016, Dropbox files and
23 folders named "SIR + HIR Export Strategy_July 2016.pdf," "HIR, SIR, TV
24 Benchmark Report_July 2016.pdf," and "Zynga" were accessed from the Barlach
25 Computer.

26 25. Analysis of iOS device backups was conducted on the Barlach
27 Computer. A backup dated August 30, 2016, demonstrates communications related
28 to Barlach's recruitment by and transfer to Scopely. The table in Figure 3 below

depicts the iMessages Barlach exchanged with individuals named Christina and Javier regarding employment at Scopely.

Date (UTC)	Sender	Message
7/21/2016	+17024396458	Hi Ehud!! It is Christina from Scopely. Just checking in to make sure you received the travel itinerary.
7/31/2016	+18183987193	Hi Ehud, I sent you the offer letter, available to discuss as needed, looking forward to doing this together.

Figure 3. Historical iMessages involving a contact named Christina at (702) 439-6458³ and a contact named Javier at (818) 398-7193⁴

26. On August 10, 2016, in another message exchange between Barlach and Christina, Barlach offered to provide feedback on other Zynga candidates under consideration for hiring by Scopely. The table in Figure 4 depicts the dialogue between Christina and Barlach. The follow-up text messages were not recovered.

Date/Time (UTC)	Sender	Message
8/10/2016 5:08am	+13122885656	Btw, if you want you can consult with me re other Zynga candidates you might have
8/10/2016 5:10am	+17024396458	Thanks!! I was saving that for your first day! LOL I would be happy to hear about anyone you think I should be trying to speak with. Obviously I know you have that clause about not taking people so I am always careful ☺
8/10/2016 5:13am	+13122885656	Yeah. I should just consult ☺

³ The contact's full name is not listed in the message body or contact record but may be "Christina Dunbar" ("Dunbar"), who is identified as Scopely's Talent Strategy Partner on a LinkedIn profile at <https://www.linkedin.com/in/christinadunbar>.

⁴ The contact's full name is not listed in the message body or contact record but may be "Javier Ferreira," who is identified as Scopely's Chief Operating Officer on Scopely's corporate website at <http://scopely.com/about/>

Date/Time (UTC)	Sender	Message
8/10/2016 5:14am	+13122885656	Anyhow, if there are people you are already considering and you'd like my view, let me know
8/10/2016 5:14am	+17024396458	Ok! Will text you names ☺

Figure 4. Historical iMessages between contact believed to be Dunbar and Barlach

V. PRELIMINARY FORENSIC ANALYSIS AND FINDINGS ON HECK COMPUTER

27. I was informed that Heck separated from his employment with Zynga on or about September 9, 2016, and I was requested to analyze Heck's computer usage leading up to that date.

28. On or about October 28, 2016, we created a forensic image of a MacBook Air laptop bearing serial number C02ML23LF6T6, which was used by Heck (the "Heck Computer").

29. As detailed below, preliminary analysis of the Heck Computer suggests that the internet history was cleared and that more than 24,000 files and folders were deleted between August 15, 2016, and September 9, 2016. Additionally, a removable storage device was connected and DropBox and Google Drive, both of which were used on the Heck Computer.

30. On September 3, 2016, an external USB device, Corsair bearing serial number 4be435c2df71b8, was attached to the Heck Computer.

31. Forensic analysis also identified that between August 15, 2016, and September 9, 2016, there were two large increases in free space on the disk which is an indication of mass deletion of data; over 16,000 files and folders were deleted within this timeframe. On September 9, 2016, a folder named "wsotw" containing over 7,000 files was deleted. In all, more than 24,000 files and folders were deleted from the Heck Computer including the user's internet browser history, internet download folder, and recycle bin.

1 32. Forensic analysis indicates that the following sites were visited:

2 a. “How to erase my hard drive and start over”

3 (<http://www.comptertro.com/issues/ch000186.htm>);

4 b. “How to Erase a Computer Hard Drive - How To Articles”

5 ([http://www.liutilities.com/how-to/erase-a-computer-hard-](http://www.liutilities.com/how-to/erase-a-computer-hard-drive/)
6 [drive/](http://www.liutilities.com/how-to/erase-a-computer-hard-drive/));

7 c. “How to completely remove Office for Mac 2011”

8 (<https://support.microsoft.com/en-us/kn/2398768>).

9 33. Evidence of access to Dropbox and Google Drive was also identified
10 on the Heck Computer.

11 **VI. PRELIMINARY FORENSIC ANALYSIS AND FINDINGS ON HOU**
12 **COMPUTER**

13 34. I was informed that Hou separated from his employment with Zynga
14 on or about October 11, 2016, and I was requested to analyze Hou’s computer
15 usage leading up to that date.

16 35. On or about October 28, 2016, we created a forensic image of a
17 MacBook Air laptop bearing serial number C02ML23LF6T6, which was used by
18 Hou (the “Hou Computer”).

19 36. As detailed below, preliminary analysis revealed that a removable
20 storage device was connected to the Hou Computer. In addition, analysis of the
21 Hou Computer revealed forensic findings of Google Drive use.

22 37. Forensic analysis identified one external USB device, a Kingston
23 DataTraveler, attached to the computer as recently as October 9, 2016, at 2:58 p.m.
24 and 4:23 p.m., as well as on October 10, 2016, at 6:21 p.m.

25 38. The following files were accessed around the time when a USB was
26 known to be connected to the computer, “Retention by OS HIR SIR.xlsx” and “HIR
27 Retention by Device.xlsx.” This evidence is often indicative of a user identifying
28 files to copy onto a device. The table in Figure 5 depicts the Artifact Type,

Filename, Path, and Date File Accessed.

Artifact Type	Filename	Path	Date File Accessed
Office Recent	Retention by OS HIR SIR.xlsx	/Users/ehou/Documents/Slots/HIR 1/Retention by OS HIR SIR.xlsx	10/10/2016 20:55:00
Office Recent	HIR Retention by Device.xlsx	/Users/ehou/Documents/Slots/HIR 1/HIR Retention by Device.xlsx	10/10/2016 10:26:04

Figure 5. Recently Accessed Files

39. Preliminary analysis identified evidence of regular access to Google Drive, including a slight increase of activity on October 6, 2016, and October 10, 2016, on the Hou Computer.

40. Review of internet history on the Hou Computer indicates that Hou accessed his personal webmail account, evanhou@gmail.com, on a regular basis. As early as September 6, 2016, and through September 20, 2016, Hou was communicating via his personal webmail account regarding “Scopely Opportunity” and “Scopely Visit.” The table in Figure 6 depicts the Date Visited and Title of Gmail page titles identifying messages in the Gmail account related to Scopely.

Date Visited (Pacific)	Title
9/6/2016 17:03	Scopely Opportunity - evanhou@gmail.com - Gmail
9/6/2016 17:04	Scopely Opportunity - evanhou@gmail.com - Gmail
9/9/2016 15:52	Scopely Opportunity - evanhou@gmail.com - Gmail
9/13/2016 11:51	Scopely Opportunity - evanhou@gmail.com - Gmail
9/15/2016 17:33	Scopely Visit - evanhou@gmail.com - Gmail
9/20/2016 17:58	Scopely Opportunity - evanhou@gmail.com - Gmail
9/20/2016 18:00	Scopely Opportunity - evanhou@gmail.com - Gmail
9/20/2016 18:00	Scopely Opportunity - evanhou@gmail.com - Gmail
9/20/2016 18:00	Scopely Visit - evanhou@gmail.com - Gmail
9/20/2016 18:13	Scopely Opportunity - evanhou@gmail.com - Gmail
9/20/2016 18:13	Scopely Visit - evanhou@gmail.com - Gmail

Figure 6. Review of Gmail page titles related to Scopely

VII. CONCLUSION

41. Preliminary analysis of the Maietti Computer revealed forensic findings consistent with the transfer of files from the Maietti Computer to a Toshiba external storage device on July 4, 2016, and from the Maietti Computer to the cloud repository Box on or before July 7, 2016.

42. Preliminary analysis of the Barlach Computer revealed forensic findings that a removable storage device was connected to his computer, most recently on August 22, 2016. Additionally, evidence from an iOS device backup dated August 30, 2016, reveals communications regarding Scopely.

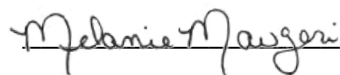
43. Preliminary analysis of the Heck Computer revealed more than 24,000 files and folders were deleted between August 15, 2016, and September 9, 2016, and a removable storage device was connected to the Heck Computer.

44. Preliminary analysis of the Hou Computer also revealed that a removable storage device was connected to this computer on October 9 and 10, 2016.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

EXECUTED this 27 day of November, 2016, in San Francisco County, California.

STROZ FRIEDBERG, LLC



MELANIE MAUGERI